

CLAIMS

1. A cooking device comprising:

a body which carries a tank with electrical heating means and receiving a basket for containing a food to be cooked;

actuation means connected to said basket for moving said basket between a position inside said tank and a position at least partially outside of said tank;

a first temperature sensor for at least one portion of said tank;

a timer; and

control means for said actuation means connected to said sensor and said timer, for moving said basket in response to the signals which said control means receive from said temperature sensor and from said timer.

2. The cooking device according to claim 1, further comprising stirring means contained inside said basket and connected to said control means for stirring said food.

3. The cooking device according to claim 2 wherein said stirring means comprise an element rotatably connected to said basket and removably connected to a pulling unit which projects from said body and is connected to a first motor.

4. The cooking device according to claim 3 wherein said rotatable element comprises a vane which has a central part defining a seat suitable for receiving a portion of said pulling unit.

5. The cooking device according to claim 4 wherein said central part of said vane is rotatably held on an inner side of a base of said basket through a counterpart arranged on the outer side of the base of said basket and associated with said central part of said vane through mutual release hooking members operating inside a shaping of a through-seat realized on the base of the basket.

6. The cooking device according to claim 3 wherein said actuation means comprise a support for said basket associated with a cursor having a rack operatively connected to a pinion actuated through a second motor, said second motor being connected to said control means.

7. The cooking device according to claim 6, further comprising removable hooking means between said support and said cursor.

8. The cooking device according to claim 7 wherein said removable hooking means between said support and said cursor

comprise a release lever actuated manually against and through the action of first elastic means to hook to a hooking member.

9. The cooking device according to claim 6, further comprising at least one second sensor and, respectively, a third sensor connected to said control means and suitable for detecting the position inside and, respectively, the position at least partially outside said basket.

10. The cooking device according to claim 9 wherein said second and third sensors are microswitches.

11. The cooking device according to claim 10, further comprising a guide for the translation of said actuation means.

12. The cooking device according to claim 11 wherein said second and third sensors and said second motor lie in a misaligned position with respect to a translation axis of said actuation means.

13. The cooking device according to claim 12 wherein said guide defines a shell suitable for protecting, inside of it, said support and said cursor, and suitable for supporting, on the outside, said second and third sensors and said second motor.

14. The cooking device according to claim 13 wherein that said shell is open on the side facing said tank.

15. The cooking device according to claim 9 wherein said tank is removably connected to said body.

16. The cooking device according to claim 15 which has a counter tank which houses said tank inside of it.

17. The cooking device according to claim 16, further comprising at least one fourth sensor of the presence of said tank.

18. The cooking device according to claim 1, further comprising a first lid applied onto said basket.

19. The cooking device according to claim 18 wherein said first lid has at least one first and one second positioning hole for long pasta suitable for holding said long pasta in a suitable position for stirring.

20. The cooking device according to claim 19 wherein said first lid has at least one third hole in which a container is housed suspended in said basket.

21. The cooking device according to claim 20 wherein said container extends below with a fixed anti-rotation vane of the pasta.

22. The cooking device according to claim 21 in that said tank has an upper edge that is raised with respect to an upper edge of the counter tank.

23. The cooking device according to claim 22 wherein, between the upper edge of said tank and the upper edge of said counter tank a deviation ring is arranged suitable for deviating cooking liquid possibly escaping from said tank outside of said counter tank.

24. The cooking device according to claims 23 wherein said deviation ring is held in a flap of the upper edge of said tank wherein at least one grip of said tank extends from said deviation ring.

25. The cooking device according to claim 24, further comprising a second lid applied over said first lid.

26. The cooking device according to claim 25 wherein said second lid extends radially beyond the shaping of said tank and has a peripheral edge which rests in a seat of said grip of said

tank.

27. The cooking device according to claim 16, further comprising a protective element for said first motor placed between said first motor and said counter tank.

28. The cooking device according to claims 1 wherein a side wall of said basket has a plurality of calibrated holes suitable for redirecting the cooking liquid rising through a space between said basket and said tank back inside said basket.

29. The cooking device according to claim 28 wherein said plurality of calibrated holes of the basket is present at least in a zone of the side wall of said basket facing a zone of the tank most heated by said electrical heating means.

30. The cooking device according to claim 29 wherein said space widens at the upper part of said tank so as to define an expansion chamber suitable for eliminating foam possibly produced during cooking and for limiting the rise of cooking liquid.

31. The cooking device according to claim 30 wherein the size of said space is chosen between a minimum value suitable for eliminating foam produced during cooking and for minimizing the rise of cooking liquid through said space, and a maximum value suitable for minimizing the bulk of the cooking device.

32. The cooking device according to claim 1, further comprising at least one spacer element between said basket and said tank to keep said basket centered in said tank.

33. The cooking device according to claim 1, further comprising an anti-flexion device for means of said basket.

34. The cooking device according to claim 33 wherein said anti-flexion device comprises at least one hooking element of an upper portion of said basket engaging said tank.

35. The cooking device according to claim 1 wherein said control means are in the form of an electric circuit board.

36. A cooking method using a device according to claim 1 or of operating said device wherein said heating means heat the water contained in the tank up to a predetermined temperature substantially coinciding with boiling temperature, when the first sensor detects that such a predetermined temperature has been reached the basket is lowered into said water and, at the same time, the timer is started for a preset time period, when the timer reaches the end of such a preset time period the control means deactivate the heating means and command the removal of the basket from the tank.

37. The cooking method according to claim 35 wherein to calculate the boiling point said control means adopt a calculation algorithm which evaluates the slope of the upward curve of the water temperature.

38. The cooking method according to claim 37 wherein said calculation algorithm evaluates an average of the slopes of said upward curve taken at various moments in time.

39. The cooking method according to claim 38 wherein after a predetermined time period from the lowering of the basket into the tank, the stirring means are actuated.

40. The cooking method according to claim 39 wherein said heating means are activated discontinuously, so as to partialize the power, decrease the turbulence of the water and reduce foam production.

41. The cooking method according to claim 40 wherein when the pasta is cooked at a predetermined time of day, said control means activate said heating means at a set time and check the increase in temperature of the water and, in the case in which it is too quick, interrupt the power supply of the electric heating means and calculate the waiting time before starting to heat up again.